

# Voltage Controlled Oscillator

ROS-ED9807/1

## Typical Performance Data

| V<br>TUNE | TUNE<br>SENS<br>(MHz/V) | FREQUENCY<br>(MHz) |       |       | POWER OUTPUT<br>(dBm) |       |       | HARMONICS (dBc) |       |       | FREQ.<br>PUSH<br>(MHz/V) | FREQ<br>OFFSET<br>(KHz) | PHASE<br>NOISE<br>(dBc/Hz) |
|-----------|-------------------------|--------------------|-------|-------|-----------------------|-------|-------|-----------------|-------|-------|--------------------------|-------------------------|----------------------------|
|           |                         | -55°C              | +25°C | +85°C | -55°C                 | +25°C | +85°C | F2              | F3    | F4    |                          |                         |                            |
| 0.2       | 98.48                   | 405.8              | 397.3 | 391.6 | 7.19                  | 8.08  | 7.58  | -11.9           | -36.1 | -37.3 | 2.99                     | 1                       | -80                        |
| 0.3       | 96.50                   | 420.9              | 411.8 | 406.0 | 7.14                  | 8.06  | 7.64  | -11.7           | -36.1 | -36.2 | 3.80                     | 10                      | -105                       |
| 0.5       | 94.41                   | 435.1              | 426.0 | 420.3 | 7.03                  | 7.95  | 7.45  | -11.6           | -34.4 | -36.7 | 4.17                     | 100                     | -125                       |
| 0.6       | 88.53                   | 448.0              | 439.2 | 433.7 | 6.91                  | 7.73  | 7.14  | -11.6           | -32.3 | -38.6 | 3.56                     | 1000                    | -145                       |
| 0.8       | 83.89                   | 460.2              | 451.8 | 446.2 | 6.61                  | 7.38  | 6.89  | -11.9           | -30.4 | -41.3 | 3.02                     |                         |                            |
| 0.9       | 78.71                   | 471.8              | 463.6 | 457.9 | 6.40                  | 7.23  | 6.77  | -12.3           | -29.7 | -41.8 | 2.53                     |                         |                            |
| 1.1       | 74.50                   | 482.9              | 474.8 | 469.1 | 6.33                  | 7.16  | 6.76  | -12.7           | -29.3 | -41.6 | 2.19                     |                         |                            |
| 1.2       | 71.43                   | 493.4              | 485.5 | 479.7 | 6.20                  | 7.10  | 6.80  | -13.3           | -29.1 | -40.5 | 1.94                     |                         |                            |
| 1.4       | 67.84                   | 503.4              | 495.7 | 489.9 | 6.08                  | 7.03  | 6.80  | -13.6           | -29.1 | -39.9 | 1.74                     |                         |                            |
| 1.5       | 65.20                   | 513.1              | 505.5 | 499.8 | 5.98                  | 6.97  | 6.78  | -13.9           | -29.3 | -40.2 | 1.62                     |                         |                            |
| 1.7       | 62.47                   | 522.4              | 514.8 | 509.2 | 5.91                  | 6.92  | 6.76  | -14.2           | -29.4 | -41.1 | 1.56                     |                         |                            |
| 1.8       | 59.81                   | 531.2              | 523.8 | 518.2 | 5.87                  | 6.88  | 6.74  | -14.6           | -29.6 | -42.3 | 1.45                     |                         |                            |
| 2.0       | 57.36                   | 539.7              | 532.4 | 526.9 | 5.79                  | 6.86  | 6.73  | -14.8           | -29.8 | -44.3 | 1.39                     |                         |                            |
| 2.1       | 54.95                   | 547.8              | 540.7 | 535.2 | 5.64                  | 6.78  | 6.71  | -15.2           | -30.1 | -47.1 | 1.33                     |                         |                            |
| 2.3       | 52.35                   | 555.5              | 548.5 | 543.0 | 5.48                  | 6.62  | 6.64  | -15.3           | -30.4 | -49.9 | 1.28                     |                         |                            |
| 2.4       | 49.87                   | 562.8              | 556.0 | 550.6 | 5.25                  | 6.48  | 6.53  | -15.5           | -31.0 | -47.8 | 1.24                     |                         |                            |
| 2.6       | 47.36                   | 569.7              | 563.1 | 557.7 | 5.08                  | 6.25  | 6.34  | -15.6           | -31.6 | -45.6 | 1.20                     |                         |                            |
| 2.7       | 44.79                   | 576.3              | 569.8 | 564.5 | 4.94                  | 6.08  | 6.15  | -15.7           | -32.3 | -42.2 | 1.18                     |                         |                            |
| 2.9       | 42.38                   | 582.6              | 576.2 | 571.1 | 4.81                  | 5.94  | 5.96  | -15.8           | -32.3 | -40.3 | 1.13                     |                         |                            |
| 3.0       | 40.07                   | 588.4              | 582.2 | 577.3 | 4.79                  | 5.85  | 5.84  | -15.8           | -32.9 | -38.3 | 1.09                     |                         |                            |
| 3.2       | 37.73                   | 594.0              | 587.8 | 582.9 | 4.81                  | 5.77  | 5.73  | -15.9           | -33.2 | -36.8 | 1.05                     |                         |                            |
| 3.3       | 35.45                   | 599.2              | 593.2 | 588.3 | 4.83                  | 5.77  | 5.70  | -15.9           | -33.5 | -35.6 | 1.02                     |                         |                            |
| 3.5       | 33.41                   | 604.1              | 598.2 | 593.3 | 4.86                  | 5.79  | 5.71  | -15.9           | -33.8 | -34.3 | 0.96                     |                         |                            |
| 3.6       | 31.31                   | 608.6              | 602.9 | 598.0 | 4.89                  | 5.81  | 5.73  | -16.0           | -33.7 | -33.3 | 0.92                     |                         |                            |
| 3.8       | 29.38                   | 612.9              | 607.3 | 602.5 | 4.89                  | 5.83  | 5.75  | -16.0           | -33.7 | -32.3 | 0.86                     |                         |                            |
| 3.9       | 27.48                   | 617.0              | 611.4 | 606.7 | 4.87                  | 5.84  | 5.79  | -16.1           | -33.6 | -31.6 | 0.79                     |                         |                            |
| 4.1       | 25.66                   | 620.7              | 615.2 | 610.4 | 4.87                  | 5.82  | 5.84  | -16.1           | -33.6 | -31.0 | 0.72                     |                         |                            |
| 4.2       | 24.08                   | 624.2              | 618.9 | 613.9 | 4.85                  | 5.82  | 5.81  | -16.1           | -33.7 | -30.6 | 0.68                     |                         |                            |
| 4.4       | 22.52                   | 627.5              | 622.2 | 617.3 | 4.81                  | 5.78  | 5.78  | -16.1           | -33.7 | -29.8 | 0.59                     |                         |                            |
| 4.5       | 21.10                   | 630.6              | 625.4 | 620.4 | 4.81                  | 5.76  | 5.78  | -16.1           | -33.6 | -29.4 | 0.53                     |                         |                            |
| 4.7       | 19.73                   | 633.4              | 628.4 | 623.3 | 4.81                  | 5.76  | 5.76  | -16.1           | -33.7 | -29.0 | 0.48                     |                         |                            |
| 4.8       | 18.40                   | 636.1              | 631.1 | 626.0 | 4.76                  | 5.71  | 5.72  | -16.1           | -33.7 | -28.6 | 0.40                     |                         |                            |
| 5.0       | 17.28                   | 638.6              | 633.7 | 628.6 | 4.78                  | 5.71  | 5.72  | -16.1           | -33.6 | -28.4 | 0.37                     |                         |                            |
| 5.1       | 16.15                   | 640.9              | 636.1 | 630.9 | 4.75                  | 5.67  | 5.68  | -16.1           | -33.5 | -28.2 | 0.32                     |                         |                            |
| 5.3       | 15.04                   | 643.1              | 638.4 | 633.1 | 4.78                  | 5.69  | 5.68  | -16.1           | -33.6 | -28.0 | 0.27                     |                         |                            |
| 5.4       | 14.03                   | 645.2              | 640.5 | 635.1 | 4.75                  | 5.66  | 5.65  | -16.1           | -33.5 | -27.7 | 0.22                     |                         |                            |
| 5.6       | 13.07                   | 647.1              | 642.5 | 637.0 | 4.73                  | 5.63  | 5.61  | -16.1           | -33.5 | -27.6 | 0.19                     |                         |                            |
| 5.7       | 12.24                   | 648.9              | 644.3 | 638.7 | 4.78                  | 5.67  | 5.64  | -16.1           | -33.6 | -27.3 | 0.16                     |                         |                            |
| 5.9       | 11.40                   | 650.5              | 646.0 | 640.3 | 4.77                  | 5.65  | 5.61  | -16.1           | -33.4 | -27.0 | 0.13                     |                         |                            |
| 6.0       | 10.75                   | 652.1              | 647.6 | 641.8 | 4.76                  | 5.70  | 5.58  | -16.0           | -33.6 | -26.9 | 0.08                     |                         |                            |